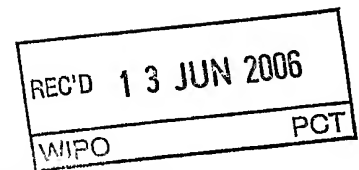


PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)



Applicant's or agent's file reference PC-21018792	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/SE2005/000310	International filing date (day/month/year) 02-03-2005	Priority date (day/month/year) 03-03-2004
International Patent Classification (IPC) or national classification and IPC See Supplemental Box		
Applicant Fergas AB et al		

- This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 5 sheets, including this cover sheet.
- This report is also accompanied by ANNEXES, comprising:
 - ☒ (sent to the applicant and to the International Bureau) a total of 2 sheets, as follows:
 - ☒ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
 - ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
 - ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

- | | | |
|-------------------------------------|--------------|---|
| <input checked="" type="checkbox"/> | Box No. I | Basis of the report |
| <input type="checkbox"/> | Box No. II | Priority |
| <input type="checkbox"/> | Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input type="checkbox"/> | Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> | Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> | Box No. VI | Certain documents cited |
| <input type="checkbox"/> | Box No. VII | Certain defects in the international application |
| <input type="checkbox"/> | Box No. VIII | Certain observations on the international application |

Date of submission of the demand 02-01-2006	Date of completion of this report 31-05-2006
Name and mailing address of the IPEA/SE Patent- och registreringsverket Box 5055 S-102 42 STOCKHOLM Facsimile No. +46 8 667 72 88	Authorized officer Marianne Dickman / MRO Telephone No. +46 8 782 25 00

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/SE2005/000310

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: Cover sheet

International patent classification (IPC)

F24C 7/06 (2006.01)

F24H 3/04 (2006.01)

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/SE2005/000310

Box No. I Basis of the report

1. With regard to the
- language**
- , this report is based on:



the international application in the language in which it was filed

a translation of the international application into _____,
which is the language of a translation furnished for the purposes of:

international search (Rules 12.3(a) and 23.1(b))



publication of the international application (Rule 12.4(a))



international preliminary examination (Rules 55.2(a) and/or 55.3(a))

2. With regard to the
- elements**
- of the international application, this report is based on
- (replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*
- :



the international application as originally filed/furnished



the description:

pages 1 - 7 as originally filed/furnished

pages* _____ received by this Authority on _____

pages* _____ received by this Authority on _____



the claims:

pages _____ as originally filed/furnished

pages* _____ as amended (together with any statement) under Article 19

pages* 8 - 9 received by this Authority on 02-01-2006

pages* _____ received by this Authority on _____



the drawings:

pages 1 - 3 as originally filed/furnished

pages* _____ received by this Authority on _____

pages* _____ received by this Authority on _____



a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

- 3.
- ☐
- The amendments have resulted in the cancellation of:



the description, pages _____



the claims, Nos. _____



the drawings, sheets/figs _____

the sequence listing (*specify*): _____any table(s) related to the sequence listing (*specify*): _____

- 4.
- ☐
- This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).



the description, pages _____



the claims, Nos. _____



the drawings, sheets/figs _____

the sequence listing (*specify*): _____any table(s) related to the sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/SE2005/000310

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	<u>1-5</u>	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	<u>1-5</u>	NO
Industrial applicability (IA)	Claims	<u>1-5</u>	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

Reference is made to the following document:

D1: GB996056 A

Firstly, claim 1 is worded to define a fan heater for an electrical fireplace. However, the claims do not include any technical features related to the cooperation with the electrical fireplace. Therefore, the cooperation of the heating element and the blower fan is independent of the "electrical fireplace". Thus, the expression "for an electrical fireplace" is not essential to the invention and is ignored. Also, as it says in the description, it is common knowledge to use fan heaters in electrical fireplaces.

The object of the claimed invention is to reveal a fan heater comprising a heating element and a blower fan releasably attached to each other so as to be quickly assembled. Also, the heating element can be easily replaced. Interacting members are provided on the heating element and on the blower fan in order to hold the heating element in position relative the blower fan.

D1 relates to a fan heater including a blower fan unit with an outlet duct. A unit with heating elements can be mounted to the outlet duct by use of projections engaging slots in the wall of the duct, see page 3 lines 4-6. The heating element unit and the blower fan can be quickly assembled and the heating element can be easily replaced in a way similar to the claimed arrangement, see page 1 lines 35-39.

.../...

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: BOX V

The heater stated in amended claim 1 differs from the heater revealed in D1 by pointing out interacting members in the form of first and second snap lock members, wherein the first members include a pin intended to cooperate with the second member (an opening). The description does not reveal any special problem to be solved by this design. Thus, the drawings and the description only refer to a design including two snap lock arrangements, each of them including three resilient tongues with oppositely directed pins intended to cooperate with openings. However, none of the claims reveals such snap lock arrangements.

The snap locks stated in present claim 1 do not differ from ordinary snap locks. Therefore, it must be obvious to a person skilled in the art to modify the projections in D1 to be formed as ordinary snap locks. No unexpected effect is indicated in the application by using ordinary snap locks, each including a pin and a cooperating opening. Therefore, claim 1 only discloses snap lock arrangements with features considered obvious to a person skilled in the art.

Therefore, a fan heater as is stated in claim 1, a heating element as is stated in claim 4 and a blower fan as is stated in claim 5 are novel but considered to lack inventive step. Further, the dependent claims 2-3 only reveal such features considered obvious to a skilled person and thus also lack inventive step.

There is no reason to doubt the industrial applicability of the invention.

02-01-2006

8

CLAIMS

1. A heater for an electrical fireplace, which heater comprises a heating element (1) and a blower fan (2), the blower fan (2) being releasably attached to the heating element (1) via interacting members (9a1-3, 9a2', 9b1-3, 9b1', 9b3', 14a1-3, 14b1) that are provided on the heating element (1) and on the blower fan (2), which members (9a1-3, 9a2', 9b1-3, 9b1', 9b3', 14a1-3, 14b1) are designed to be positively engaged with one another to hold the heating element (1) in position relative the blower fan (2), **characterised** in that the interacting members (9a1-3, 9a2', 9b1-3, 9b1', 9b3', 14a1-3, 14b1) are snap lock members (9a1-3, 9a2', 9b1-3, 9b1', 9b3', 14a1-3, 14b1) comprising first and second snap lock members (9a1-3, 9a2', 9b1-3, 9b1', 9b3', 14a1-3, 14b1), the first snap lock member (9a1-3, 9a2', 9b1-3, 9b1', 9b3') having at least one pin (9a2', 9b1', 9b3') designed to be positively engaged with the second snap lock member (14a1-3, 14b1), such that the pin (9a2', 9b1', 9b3') fits in a form fit manner within an opening (14a1-3, 14b1) arranged on the second snap lock member (14a1-3, 14b1), and wherein at least one of said snap lock members (9a1-3, 9a2', 9b1-3, 9b1', 9b3', 14a1-3, 14b1) is made from a resilient material.

2. The heater as claimed in claim 2, wherein the pin (9a2', 9b1', 9b3') is arranged on a resilient tongue (9a1-3, 9b1-3).

30

3. The heater as claimed in claim 1 or 2, in which the blower fan (2) is a tangential blower fan (2).

4. A heating element 1 for use in the heater as claimed in any of claims 1 to 3, wherein the heating element (1) comprises an interacting member (9a1-3, 9a2', 9b1-3, 9b1', 9b3') designed to be positively engaged with a corresponding interacting member (14a1-3, 14b1) on the blower fan (2), to hold the heating element (1) in position relative the blower fan (2), whereby the heating element (1) is releasably attachable to the blower fan (2), **characterised** in that the interacting member (9a1-3, 9a2', 9b1-3, 9b1', 9b3') on the heating element (1) is a snap lock member (9a1-3, 9a2', 9b1-3, 9b1', 9b3'), and wherein said snap lock member (9a1-3, 9a2', 9b1-3, 9b1', 9b3') is made from a resilient material.

5. A blower fan (2) for use in a heater as claimed in any of claims 1 to 3, wherein the blower fan (2) comprises a interacting member (14a1-3, 14b1) designed to be positively engaged with a corresponding interacting member (9a1-3, 9a2', 9b1-3, 9b1', 9b3') on the heating element (1), to hold the blower fan (2) in position relative the heating element (1), whereby the blower fan (2) is releasably attachable to the heating element (1) **characterised** in that the interacting member (14a1-3, 14b1) on the blower fan (2) is a snap lock member (14a1-3, 14b1), and wherein said snap lock member (14a1-3, 14b1) is made from a resilient material.